

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 March 2005 (10.03.2005)

PCT

(10) International Publication Number  
**WO 2005/021569 A1**

(51) International Patent Classification<sup>7</sup>: **C07H 19/01,**  
A01N 43/90

(21) International Application Number:  
PCT/EP2004/009594

(22) International Filing Date: 27 August 2004 (27.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0320176.1 28 August 2003 (28.08.2003) GB

(71) Applicant (for all designated States except US): **SYNGENTA PARTICIPATIONS AG** [CH/CH]; Schwarzwaldallee 215, CH-4058 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MURPHY KESS-ABI, Fiona** [IE/CH]; Syngenta Corp. Protection AG, Schwarzwaldallee 215, CH-4058 Basel (CH). **PIT-TERNA, Thomas** [AT/CH]; Syngenta Crop. Protection AG, Schwarzwaldallee 215, CH-4058 Basel (CH). **MAIENFISCH, Peter** [CH/CH]; Syngenta Crop Protection AG, Schwarzwaldallee 215, CH-4058 Basel (CH).

**CASSAYRE, Jérôme** [FR/CH]; Syngenta Crop Protection AG, Schwarzwaldallee 215, CH-4058 Basel (CH). **QUARANTA, Laura** [IT/CH]; Syngenta Crop Protection AG, Schwarzwaldallee 215, CH-4058 Basel (CH). **JUNG, Pierre** [FR/CH]; Syngenta Crop Protection AG, Schwarzwaldallee 215, CH-4058 Basel (CH). **HUETER, Ottmar, Franz** [DE/CH]; Syngenta Crop Protection AG, Schwarzwaldallee 215, CH-4058 Basel (CH).

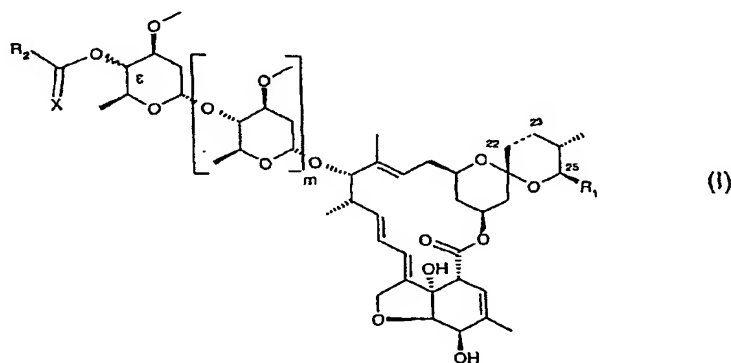
(74) Common Representative: **SYNGENTA PARTICIPATIONS AG**; Intellectual Property, P.O. Box, CH-4002 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: **AVERMECTINS AND AVERMECTIN MONOSACCHARIDES SUBSTITUTED IN THE 4'- AND 4" POSITION HAVING PESTICIDAL PROPERTIES**



(57) Abstract: Described is a compound of the formula (I) wherein the bond between carbon atoms 22 and 23 is a single or double bond; m is 0 or 1; R<sub>1</sub> is C<sub>1</sub>-C<sub>12</sub>alkyl, C<sub>3</sub>-C<sub>8</sub>cycloalkyl or C<sub>2</sub>-C<sub>12</sub>alkenyl; and either (A) R<sub>2</sub> is -N(R<sub>3</sub>)R<sub>4</sub>, and (1) X is O, wherein R<sub>3</sub> is, for instance, hydrogen, unsubstituted or mono- to pentasubstituted C<sub>1</sub>-C<sub>12</sub>alkyl, and R<sub>4</sub> is, for instance, mono- to pentasubstituted C<sub>1</sub>-C<sub>12</sub>alkyl, unsubstituted or mono- to pentasubstituted C<sub>3</sub>-C<sub>12</sub>cycloalkyl; or (2) X is S, wherein R<sub>3</sub> is, for instance, hydrogen, unsubstituted or mono- to pentasubstituted C<sub>1</sub>-C<sub>12</sub>alkyl, and R<sub>4</sub> is, for instance, hydrogen, unsubstituted or mono- to pentasubstituted C<sub>1</sub>-C<sub>12</sub>alkyl; or (3) X is O or S, wherein R<sub>3</sub> and R<sub>4</sub> together are, for instance, a three- to seven membered alkylene or a four- to seven-membered alkenylene bridge; or (B) R<sub>2</sub> is OR<sub>5</sub>, X is O or S, wherein R<sub>5</sub> is, for instance, C<sub>1</sub>-C<sub>12</sub>alkyl, mono- to pentasubstituted C<sub>1</sub>-C<sub>12</sub>alkyl; or, if appropriate, an E/Z isomer, E/Z isomer mixture and/or tautomer thereof, in each case in free form or in salt form; such a compound demonstrates pesticidal activity.



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

**Published:**

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*